

CLAIMS

1. (Currently Amended) A method of creating a symmetrical signal from a pair of pulse width modulated signals, comprising the steps of:

applying one of the pair of pulse width modulated signals both to a set input of a plurality of latch circuits and to a delay circuit;

applying the other of the pair of pulse width modulated signals to a reset input of the plurality of latch circuits, wherein both of the pair of pulse width modulated signals have substantially constant and equidistant start transition times;

obtaining a constant width drive signal from the output of said at least one latch circuit of the plurality of latch circuits; and

obtaining a second pulse width modulated drive signal from an output of the delay circuit.

2. (Currently Amended) Apparatus for generating a symmetrical signal from a complementary pair of pulse width modulated signals, comprising:

a first pulse width modulated control signal supplying means;

a second pulse width modulated control signal supplying means, wherein both of the pair of pulse width modulated control signal supplying means have substantially constant and equidistant start transition times;

a plurality of toggle circuits, connected to said first and second control signal supplying means, the at least one toggle circuit of the plurality of toggle circuits supplying a first output drive signal level upon detecting a given characteristic of a first pulse width modulated control signal received from said first supplying means and supplying a second output drive signal level upon detecting said given characteristic of a second pulse width modulated control signal received from said second supplying means, whereby substantially symmetrical first and second output drive signals are generated from said at least one toggle circuit of the plurality of toggle circuits; and

a delay circuit connected at least to the first pulse width modulated control signal supplying means, wherein the delay circuit at least provides a pulse width modulated drive signal.

3. (Currently Amended) A method of generating a pulse width modulated signal and a symmetrical signal from a pair of pulse width modulated signals, comprising the steps of:

applying one of the pair of first pulse width modulated signals to a set input of a plurality of latch circuits as well as to a turn-on delay circuit wherein the turn-on delay is such that an output voltage transition of the turn-on delay circuit coincides with an output voltage transition of the latch circuit;

applying the other of the pair of first pulse width modulated signals to a reset input of the plurality of latch circuits;

obtaining a constant pulse width drive signal from the output of said at least one latch circuit of the plurality of latch circuits; and

obtaining a second pulse width modulated drive signal from the output of the turn-on delay circuit.

4. (Currently Amended) A method of generating a pulse width modulated signal and a symmetrical signal from a pair of pulse width modulated signals, comprising the steps of:

applying one of the pair of first pulse width modulated signals to a plurality of toggle circuits as well as to a delayed turn-on drive circuit wherein the turn-on delay is such that an output voltage transition of the delayed turn-on circuit coincides with an output voltage transition of the at least one toggle circuit of the plurality of toggle circuits;

applying the other of the pair of first pulse width modulated signals to said plurality of toggle circuits;

obtaining a symmetrical drive signal from the output of said at least one toggle circuit of the plurality of toggle circuits; and

obtaining a second pulse width modulated drive signal from the output of the delayed turn-on circuit.

5. (Currently Amended) A method of generating drive signals from a pair of pulse width modulated input control signals, comprising the steps of:

applying both of a pair of pulse width modulated control signals to a plurality of first drive circuits;

toggling said at least one first drive circuit between predetermined output drive signal voltage levels upon detection of a given transition characteristic of each of the pair of pulse width modulated input control signals; and

 delaying the application of one of said pair of pulse width modulated control signals to a second drive circuit whereby an output voltage transition of the second circuit coincides with an output voltage transition of the toggled drive circuit.

6. (Currently Amended) ~~The method of claim 5, comprising the additional steps of:~~ A method of generating drive signals from a pair of pulse width modulated input control signals, comprising the steps of:

applying both of a pair of pulse width modulated control signals to a first drive circuit;
toggling said first drive circuit between predetermined output drive signal voltage levels upon detection of a given transition characteristic of each of the pair of pulse width modulated input control signals;

delaying the application of one of said pair of pulse width modulated control signals to a second drive circuit whereby an output voltage transition of the second circuit coincides with an output voltage transition of the toggled drive circuit;

 applying said pair of pulse width modulated control signals to a third drive circuit for toggling said third drive circuit whereby a drive signal complementary to the output drive signal of said first drive circuit is generated; and

 delaying the application of the other of said pair of pulse width modulated control signals to a fourth drive circuit whereby an output voltage transition of said fourth circuit coincides with an output voltage transition of one of the toggled drive circuits.

7. (Currently Amended) Apparatus for generating a pulse width modulated signal and a symmetrical signal, comprising:

 first and second pulse width modulated signal supplying means;
 a plurality of latch circuits, connected to said first and second signal supplying means, the plurality of latch circuits changing states upon detection of a given characteristic of received pulse width modulated signals at set and reset inputs thereof; and

a delayed turn-on circuit, connected to said first signal supplying means, the turn-on circuit receiving the pulse width modulated signal therefrom, the turn-on delay causing an output voltage transition of the delayed turn-on circuit to coincide with an output voltage transition of the latch circuit.

8. (Currently Amended) Apparatus for generating a pulse width modulated signal and a symmetrical signal, comprising:

first and second pulse width modulated signal supplying means;

a plurality of toggle circuits, connected to said first and second signal supplying means, the plurality of toggle circuits toggling between first output drive signal states upon detection of a given characteristic of received pulse width modulated signals; and

a delayed turn-on circuit, connected to said first signal supplying means, the delayed turn-on circuit receiving a pulse width modulated signal therefrom, the turn-on delay causing a voltage transition of a generated second output drive signal of the turn-on delay circuit to coincide with an output voltage transition of the first drive signal.

9. (Currently Amended) Apparatus as claimed in claim 8, comprising in addition:
Apparatus for generating a pulse width modulated signal and a symmetrical signal, comprising:

first and second pulse width modulated signal supplying means;

a toggle circuit, connected to said first and second signal supplying means, the toggle circuit toggling between first output drive signal states upon detection of a given characteristic of received pulse width modulated signals;

a delayed turn-on circuit, connected to said first signal supplying means, the delayed turn-on circuit receiving a pulse width modulated signal therefrom, the turn-on delay causing a voltage transition of a generated second output drive signal of the turn-on delay circuit to coincide with an output voltage transition of the first drive signal;

an additional toggle circuit, connected to said first and second signal supplying means, the additional toggle circuit generating an output drive signal complementary to the first drive signal;
and

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an additional delayed turn-on circuit, connected to said first signal supplying means, the additional delayed turn-on circuit generating a fourth output drive signal complementary to said second output drive signal.